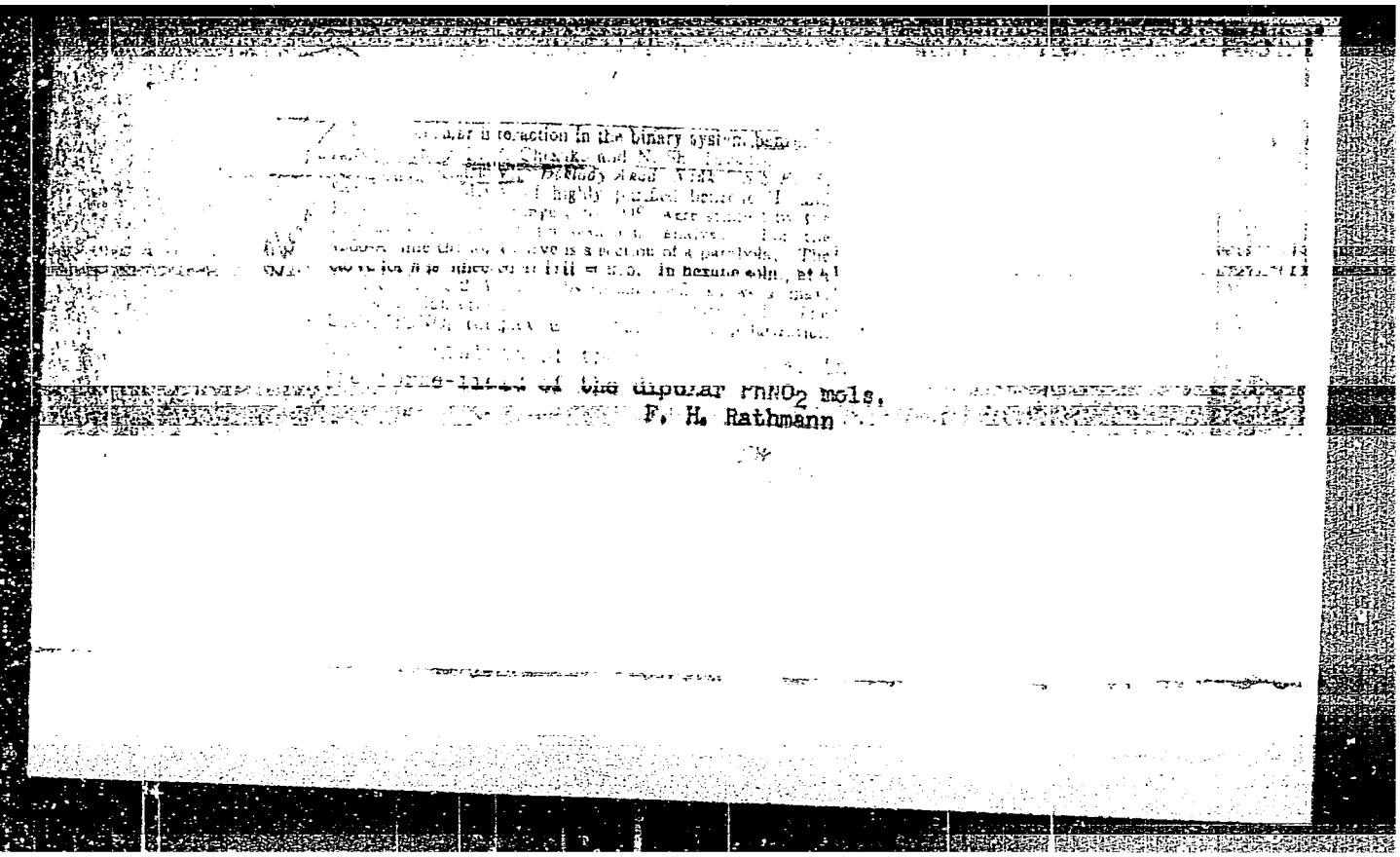

[illegible] of the dipolar $rhNO_2$ mols.

F. H. Rathmann

USSR /Chemical Technology. Chemical Products and Their Application I-15

Treatment of solid mineral fuels

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31829

the benzene. The CaO is first calcined at 900° for 6 hours and is then sifted through a screen of 900 apertures per 1 cm^2.

Card 2/2

CHESHKO, F.F.

Category: USSR / Physical Chemistry-Molecule. Chemical bond. B-4

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 29571

Author : XX. Valyashko N. A., Romazanovich N. P.
XXI. Valyashko N. A., Cheshko F. F., Romazanovich N. P.

Inst : not given

Title : Absorption Spectra and Structure of Benzene Drivatives. XX. Spectrographic Investigation of p-Aminobenzene Sulfonic Acid and Its Derivatives. XXI. p-Dimethylaminobenzene Sulfonic Acid and Its Methyl Ester.

Orig Pub: Zh. obshch. khimii, 1956, 26, No 9, 2509-2516; 2516-2524.

Abstract: XX. Investigation of ultraviolet absorption spectra (AS) of p-amino benzene sulfonic acid (I) and its amide (II), in water, 1 N NaOH and 1 N HCl, of ethyl ester of I (III) in 40 and 95% alcohol and of I in 40% alcohol; AS curves, λ_{max} and [illegible], are given. A comparison is made with AS of benzene sulfonic acid (IV). Since AS of I contains a strong absorption band which is retained in alkaline solution, and since AS of III and II are very close to AS of I in aqueous solution,

Card : 1/3

-6-

Category: USSR/Physical Chemistry-Molecule. Chemical bond. B-4

Abs Jour: Referat Zhur-Khimiya, no 9, 1957, 29571.

the authors reach the conclusion that I cannot exist in the form of an internal salt. Investigation of dependence of conductance of binary systems I - NaOH and I - HCl on composition and value of the heat of neutralization of I, did not confirm the possibility of the existence of I in the form of a dipolar ion. The authors consider that in I the NH_2 and SO_3H groups are conjugated with the benzene ring; the assumed conjugation scheme is shown.

XXI. Investigation of ultraviolet AS of p-dimethyl aminobenzene sulfonic acid (V) in 40% alcohol and 1 N HCl, and of its methyl ester (VI) in 40% alcohol; AS curves, λ_{max} and ε, are shown. Similarity of AS of I, V and VI was ascertained. V was prepared from I and CH I. VI was prepared by methylation of V with $(CH_3)_2SO_4$; melting points of the freshly prepared, after 1, 3, 8 and 17 days are, respectively, 91, 180, 230 (decomposes) and 250° C (decomposes). From the last mentioned specimen was isolated, by extraction with benzene, a new, water-soluble form of VI, MP 300° (decomposes); both forms have been investigated microscopically and by means of x-rays; it was found that the

Card : 2/3

AUTHORS: Cheshko, F. F.; Novikova, L. N.; Shevchenko, O. I. 79-2-11/58

TITLE: Effect of Intermolecular Reaction on the Bromination Reaction in a Binary Benzene - Nitrobenzene System (Vliyaniye mezhmolekulyarnogo vzaimodeystviya na reaktsiyu bromirovaniya v dvoynoy sisteme benzol - nitrobenzol)

PERIODICAL: Zhurnal Obshchey Khimii, 1957, vol 27, No 2, pp. 328-330 (U.S.S.R.).

ABSTRACT: The reaction of benzene bromination was investigated in nitrobenzene, bromobenzene and tetrachloromethane solutions and in the absence of solvents. The initiating effect of nitrobenzene on the bromination reaction process was established only with respect to highly polar substances. The polarization of the reagents was determined by the summary dipole moment of the molecule of the solvent. The formation of nitrobenzene solvate of benzene was considered a reversible process. The effect of nitrobenzene changed only the electron system of the benzene ring; the latter distinguishes nitrobenzene from other such highly polarizing solvents as sulfuric acid, the solution in which

Card 1/3

79-2-11/58

Effect of Intermolecular Reaction on the Bromination Reaction in a Binary Benzene - Nitrobenzene System

ASSOCIATION: The Kharkov Polytechnicum

PRESENTED BY:

SUBMITTED: February 4, 1956

AVAILABLE: Library of Congress

Card 3/3

Distr: 4E4j/4E3d

Examination of carbonyl derivatives of benzene by spectrographic and other physicochemical methods. I. Study of 1,3-diacetylbenzene. [illegible] and [illegible] (Polytech. Inst., Kharkov). *Zhur. Obshchei Khim.* 27, 2181-93(1957). Absorption spectra of 1,3-$Ac_2C_6H_4$ are shown in solvents such as isooctane, H_2O, EtOH, EtOH-EtONa, and H_2SO_4. Three band groups are present in the longwave, medium ultraviolet and short ultraviolet regions with general similarity to the spectrum of AcPh, the differences being ascribed to individual conjugation of the Ph ring with the Ac groups. In H_2SO_4 of over 50% concn. there is evidently formed an oxonium salt. The degree of absorption is directly related to the dielectric const. of the solvent. Polarographic examn. of the substance in EtOH and H_2O in presence of NaOH showed that the reduction halfwave potential and the current curve show the formation of a molar complex between $Ac_2C_6H_4$ and NaOH, probably by addn. of NaOH to the carbonyl group. Conductometric curves for the aq. NaOH solns. of the substance are shown also; the curve shows a singular point in the same molar proportion of the mixt. as does the polarogram. II. Study of 1-hydroxy-2,4-diacetylbenzene. *Ibid.* 2193-2305.—Methylation of *1-hydroxy-2,4-diacetylbenzene* (I) with Me_2SO_4 in NaOH gave the *1-methoxy analog* (II), m. 71°. Absorption spectra of I and II are shown in solns. in EtOH, isoöctane, EtOH-EtONa, and H_2SO_4. The bands of I and II resemble those from 2-hydroxyacetophenone and its 4-isomer, and those of their Me ethers. In EtOH-H_2SO_4 solns. oxonium salts form from I and II. Polarographic reduction of I and II was examd. and typical curves are shown. II shows bands at 3020, 2670 and 2350 A., while the polarographic reduction potential varies somewhat with pH. I gives waves at 1.54, 1.89, and 2.27 v. I shows bands at 3225, 2685, and 2380 A. The shift of the bands of I and II indicates a hydrogen bond strength of chelation in I equiv. to 5.14 kcal./mole. G. M. Kosolapoff

1/1

CHESHKO, F.F.; DISTANOV, B.G.

Spectrographic and other physicochemical methods in the study of the carbonyl derivatives of benzene. Part 2: Analysis of 1-oxy-2,4-diacetylbenzene. Zhur. ob. khim. 27 no.8:2193-2205 Ag '57. (MLRA 10:9)

1. Khar'kovskiy politekhnicheskiy institut.
(Benzene)

CHESHKO, F.F.; DISTANOV, B.G.

Investigation of benzene carbonyl derivatives by spectrographic and other physico-chemical methods. Part 3: 1,3-dioxy-4,6- diacetyl benzene and its mono- and diethyl ethers. Zhur.ob.khim. 27 no.10: 2851-2861 O '57. (MIRA 11:4)

1.Khar'kovskiy politekhnicheskiy institut.
(Benzene) (Ethers)

CHESHKO, F.F.

AUTHOR: Cheshko, F.F. 76-10-13/34

TITLE: On the Association of Benzene (Ob assotsiatsii benzola)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1957, Vol. 31, Nr 10, pp. 2260-2268 (USSR)

ABSTRACT: The assumption concerning an association of benzene in the condensation (liquid) phase is investigated here. Considerations are made concerning the magnetic character of the benzene association in the condensation (liquid) phase in the terms of a metallic molecule model.

The energetic characteristics of the benzene are computed:

	$t^{o}C$			
Unit	20			80,07
	$\overline{E}_M$	$\overline{\Delta E}_C$	$\overline{E}_K$	$E_{evaporation}$
Erg/1 molecule	$5,6481.10^{-13}$	$6,32-10^{-13}$	$6,07.10^{-14}$	$5,03.10^{-13}$
kcal/mole	8,1342	9,1	0,883	7,25

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5(4)
AUTHOR: Cheshko, F. F.

SOV/76-33-4-1/32

TITLE: On the Amphoteric Properties of the Benzene Ring.I. (Ob amfoternosti benzol'nogo kol'tsa. I)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 4, pp 745-756 (USSR)

ABSTRACT: The binary systems of benzene hydrochloride (I) and benzene trichloromethane (II) were investigated and compared to binary systems containing electron donor substances (III) (ammonia, diethyl ether, dioxane). The experiments were conducted by V. V. Bocharova. The intermolecular reaction in the system (I) was investigated in the spectrograph ISP-22. The saturation of benzene (B) with hydrochloride (HCl) was carried out according to two methods (Figs 1, 2 the two absorption spectra). The intermolecular reaction in the systems (II) and (III) were investigated spectrographically and refractometrically (on a Pulfrich refractometer). The following molecular compounds were found: 50 $C_6H_6.HCl$, $36C_6H_6.H_3O^+Cl^-$, $C_6H_6.HCCl_3$, $2C_6H_6.(CH_2)_4O_2$. This intermolecular reaction of the benzene ring with electron acceptor and electron donor

Card 1/2

On the Amphoteric Properties of the Benzene Ring I SOV/76-33-4-1/32

functional groups shows that an influx and an emission of electrons is possible in the benzene ring. Due to this fact the benzene ring is similar to the elementary cell of a metal crystal. The association of the (B) and HCl-molecules depends on the dielectric constant (DC) of the system (I), whereas the degree of association of the (B)- and trichloromethane molecules is reversely proportional to the (DC) of the system (II). On the basis of the similarity of the metals a proton mechanism for the change of energy and charge in the liquid phase of binary systems is suggested, and computations on the energy of the intermolecular reaction described are made. The formation of the above-mentioned molecular compounds of (B) is explained by the amphoteric properties of the (B)-ring which may be observed also in the deuterium exchange (Ref 56). There are 7 figures and 56 references, 30 of which are Soviet.

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut im. V. I. Lenina (Khar'kov Polytechnical Institute imeni V. I. Lenin)

SUBMITTED: June 3, 1957

Card 2/2

S/076/60/034/010/005/022
B015/B064

AUTHORS: Cheshko, F. F., Bocharova, V. V., Budylo, L. K., Shevchenko, O. I., and Naumenko, V. P.

TITLE: Physico-chemical Investigations of the Sensitivity of the Benzene Cycle to Polarizing Actions of the Solvent and the Field of Force. I. Magneto-optical Examination of the Intermolecular Interactions in Binary Nitrobenzene Systems of the Alkyl-substituted Benzene Derivatives

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 10, pp. 2190-2198

TEXT: Alkyl derivatives of benzene, polyphenyl hydrocarbons and acene hydrocarbons were investigated in binary systems with nitrobenzene to determine the influence of functional groups upon the polarizability of the benzene cycle. The composition of the molecular compounds thus formed was determined since from the difference in the composition of these compounds it is possible to determine the varying intermolecular interaction.

Card 1/5

Physico-chemical Investigations of the Sensitivity of the Benzene Cycle to Polarizing Actions of the Solvent and the Field of Force. I. Magneto-optical Examination of the Intermolecular Interactions in Binary Nitrobenzene Systems of the Alkyl-substituted Benzene Derivatives

S/076/60/034/010/005/022
B015/B064

increase of the dipole moment and the polarizability, and weakens the magneto-optical activity (Fig. 2, Curves 1-4). The cyclization of an n-butyl chain on the benzene cycle increases the magneto-optical activity (Fig. 3, Curves 1,2). A prolongation and cyclization of the alkyl groups in o-position changes the dipole moment and the magneto-optical activity (Fig. 3, Curves 2,3) only inconsiderably. A symmetrization of the methyl groups arranged around the benzene cycle eliminates polarization and weakens the magneto-optical activity (Fig. 3, Curves 4,5). A tertiary carbon atom increases the dipole moment and weakens the magneto-optical activity (Fig. 4, Curves 1,2). An isomerization of the butyl group weakens the magneto-optical activity (Fig. 2, Curve 4, Fig. 4, Curve 2). As a functional component of α-methyl naphthalene a diene system polarized by a methyl group increases the magneto-optical activity (Fig. 4, Curves 3,4)

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Physico-chemical Investigations of the Sensitivity of the Benzene Cycle to Polarizing Actions of the Solvent and the Field of Force. I. Magneto-optical Examination of the Intermolecular Interactions in Binary Nitrobenzene Systems of the Alkyl-substituted Benzene Derivatives

S/076/60/034/010/005/022
B015/B064

considerably. From the diagrams (Figs. 2-4) it is possible to determine the formation of the following molecular compounds:

$2C_6H_6 \cdot 5C_6H_5NO_2$, $4CH_3C_6H_5 \cdot C_6H_5NO_2$, $2C_2H_5C_6H_5 \cdot 5C_6H_5NO_2$,
$5C_2H_5C_6H_5 \cdot 2C_6H_5NO_2$, 2*n*-$C_4H_9C_6H_5 \cdot 3C_6H_5NO_2$,
3*n*-$C_4H_9C_6H_5 \cdot 2C_6H_5NO_2$, 2*o*-$(CH_3)_2C_6H_4 \cdot 5C_6H_5NO_2$,
4*o*-$(CH_3)_2C_6H_4 \cdot C_6H_5NO_2$, 2*m*-$(CH_3)_2C_6H_4 \cdot 5C_6H_5NO_2$,
3*m*-$(CH_3)_2C_6H_4 \cdot 2C_6H_5NO_2$, 2*p*-$(CH_3)_2C_6H_4 \cdot 5C_6H_5NO_2$,
3*p*-$(CH_3)_2C_6H_4 \cdot 2C_6H_5NO_2$, $2C_{10}H_{12} \cdot 5C_6H_5NO_2$, $4C_{10}H_{12} \cdot C_6H_5NO_2$,
$2(CH_3)_3C_6H_3 \cdot 5C_6H_5NO_2$, $5(CH_3)_3C_6H_3 \cdot 2C_6H_5NO_2$,
2 *tert.*-$C_4H_9C_6H_5 \cdot 5C_6H_5NO_2$, 5 *tert.*-$C_4H_9C_6H_5 \cdot 2C_6H_5NO_2$,
2α-$CH_3C_{10}H_7 \cdot 5C_6H_5NO_2$, 5α-$CH_3C_{10}H_7 \cdot 2C_6H_5NO_2$.

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Physico-chemical Investigations of the Sensitivity of the Benzene Cycle to Polarizing Actions of the Solvent and the Field of Force. I. Magneto-optical Examination of the Intermolecular Interactions in Binary Nitrobenzene Systems of the Alkyl-substituted Benzene Derivatives

S/076/60/034/010/005/022
B015/B064

The reaction mechanism of such compounds can be represented as polarization and orientation of the molecules of alkyl derivatives of benzene in the field of forces of the dipole molecules of nitrobenzene with a complete or partial compensation of the dipole moment. N. Tavadze and M.Vol'kenshteyn are mentioned in the text. There are 4 figures and 8 references: 5 Soviet, 1 British, 1 German, and 1 US.

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut (Khar'kov Polytechnic Institute)

SUBMITTED: December 10, 1959

Card 5/5

CHESHKO, F.F.; SHEVCHENKO, O.I.; BOCHAROVA, V.V.; LAVYGIN, I.A.

Physicochemical studies of the sensitivity of the benzene ring to the polarizing effect of the solvent and of the force field. Part 2: Spectrographic and refractometric study of intermolecular reactions in nitrobenzene binary systems of n-butylbenzene and tetralin, toluene, and α-methylnaphthalene. Zhur.fiz.khim. 37 no.10:2190-2202 O '63. (MIRA 17:2)

1. Khar'kovskiy politekhnicheskiy institut.

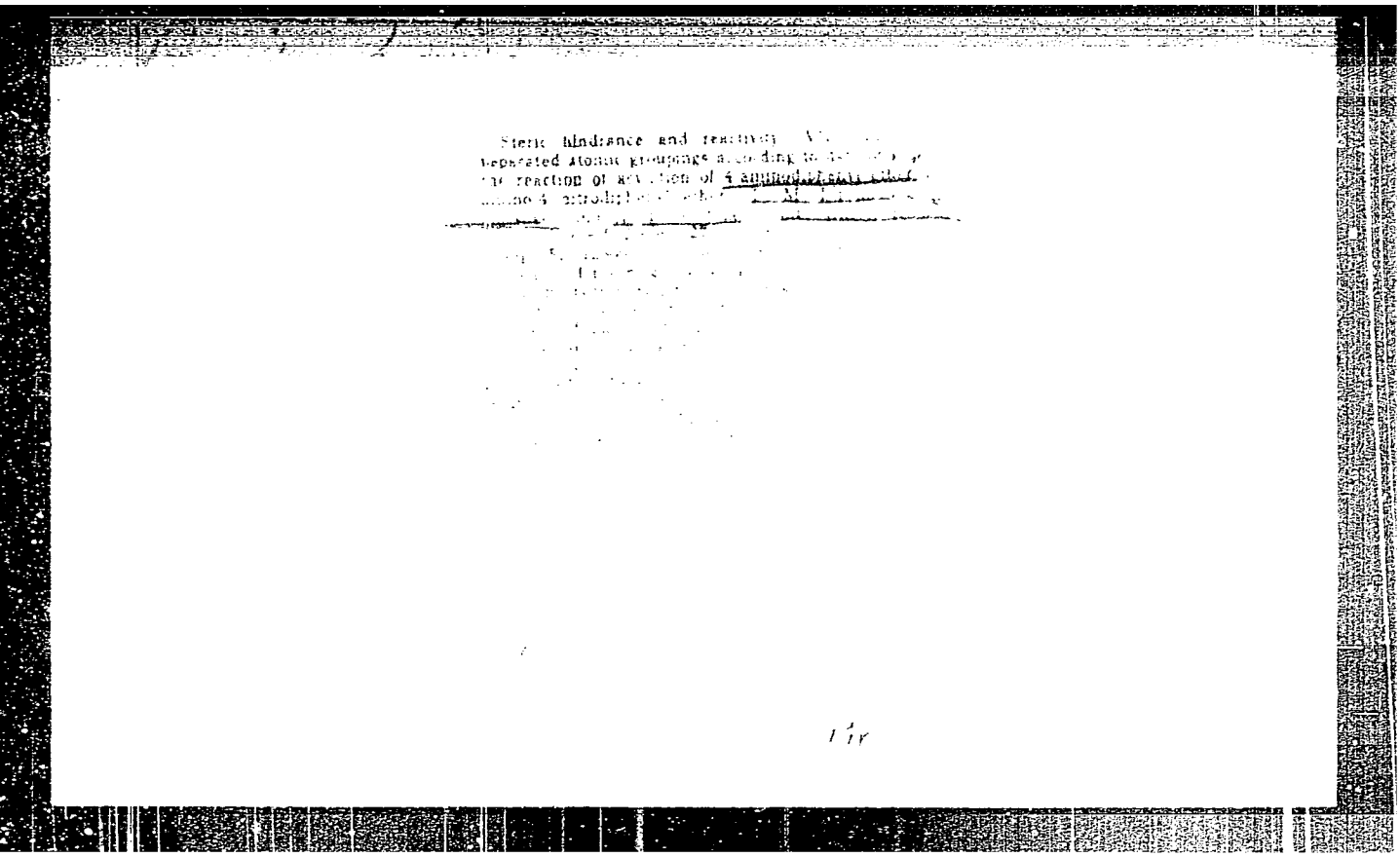
CHESHKO, F. F.; AZEN, V. E.

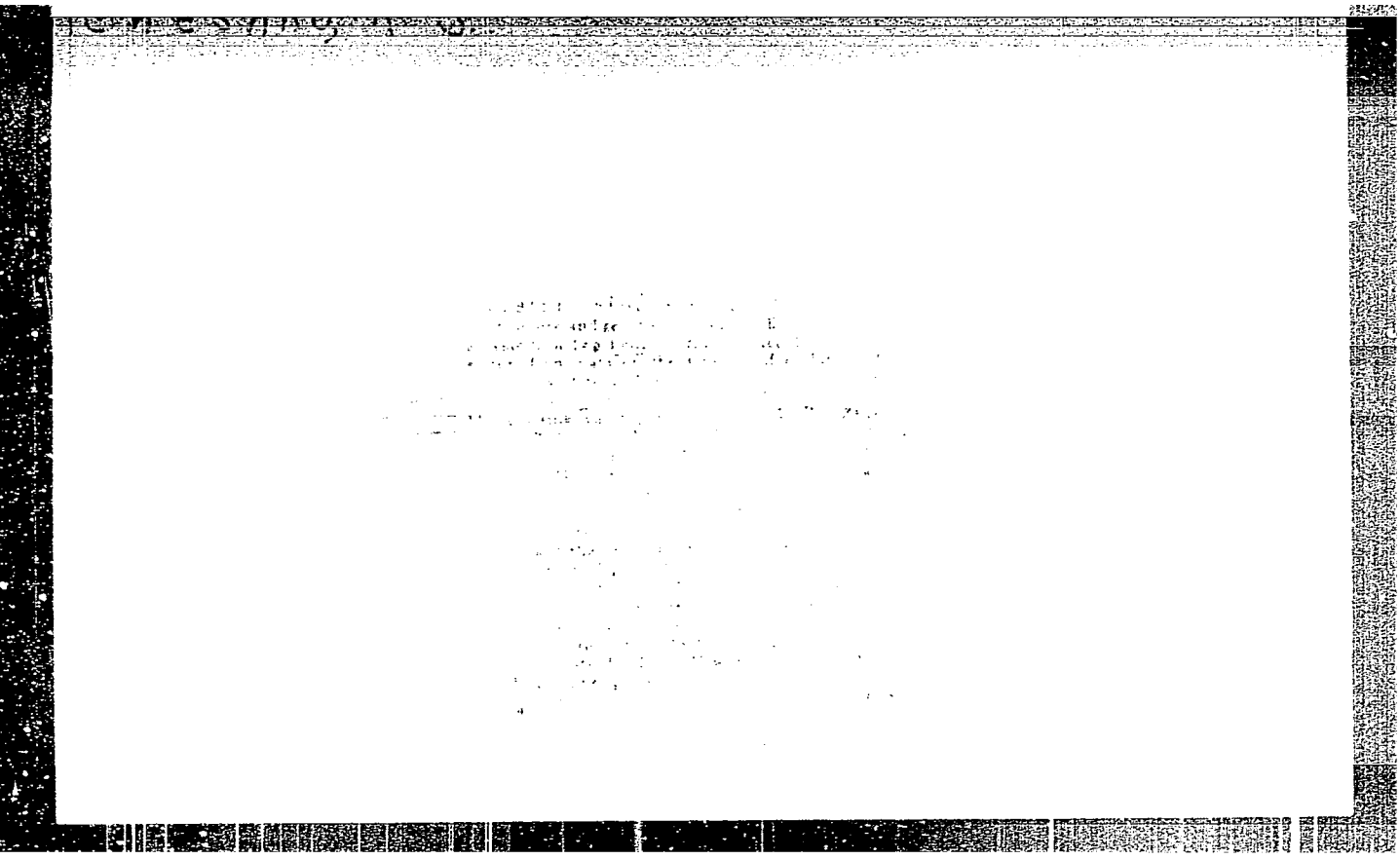
Study of molecular interaction as applied to the analysis of hydrocarbon mixtures. Part 1:Diethylamides and tetraethylamides of some carboxylic and dicarboxylic acids as stationary phases. Zhur. ob. Khim. 34 no.6:1843-1848 Je '64. (MIRA 17:7)

LITVINENKO, L.M.; CHESHKO, R.S.; PEREL'MAN, L.A.

4,4'-dinitrodiphenyldisulfide. Metod.poluch.khim.reak.i prepar. no.4/5:139-141 '62. (MIRA 17:4)

1. Khar'kovskiy gosudarstvennyy universitet imeni Gor'kogo.





ces 2,3). The numerical results for each investigated reaction are compiled in table 1. They show that contrary to the phenyl group which has a very weak electron absorbing power, the C_6H_5O group has rather a perceptible electron emission action. The analogous C_6H_5S group on the other hand has quite an electron absorbing nature, in spite of the fact that its introduction into the para position of the aniline molecule retards the acylation velocity almost by the fivefold. The authors propose a term "f" which would denote a relation of the velocity constants for reactions of the substituted and non-substituted compound. "f" shows how the reaction velocity is modified by the effect of the respective substituent on the reacting group. The comparison of the molecular systems of diphenyloxide and of diphenylsulfide surprisingly showed that the interaction of the substituents NO_2 and NH_2 at the transition from the biphenyl system to the systems of diphenyloxide and of the corresponding sulfide was not only not decreased, but in the case of the compound con-

sulfide with 4.4'-dinitro-diphenyl-methane two processes take place: reduction of nitro groups to amino groups and transformation of the methyl groups to carbonyl groups. (I) really proved to be identical with the known 4.4'-diamino-benzophenone, which is obtained according to a method described in publications (Ref 21). 4.4'-diamino-benzophenone was found to be obtained more readily and in fair yield by treating 4.4'-dinitro-diphenyl methane with sodium disulfide in aqueous methanol. This method can be used as a new and convenient method for synthesizing this diamine. After the clarification of the structure of (I) it is no more difficult to confirm the structure of (II). By potentiometric titration with nitrite (II) was proved to be a monoamine. According to its melting temperature and other physical properties it is identical with 4-amino-4'-nitro-benzophenone (Ref 22). Its definite structure was confirmed by its reduction with hydrazine hydrate in the presence of Raney nickel to 4.4'-diamino-benzophenone. By the influence of sodium disulfide upon 4-amino-diphenyl methane, also under more rigorous conditions than with the reduction of 4.4'-dinitro-diphenyl methane only 4-amino-diphenyl methane is obtained, i.e. no noticeable transformation of the methylene group into a carbonyl group takes place there. There are 24 references,

On the Reduction of Nitro Derivatives of Diphenyl Methane With Alkali Sulfides SOV/79-29-5-13/75

18 of which are Soviet.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet (Khar'kov State University)

SUBMITTED: May 4, 1958

Card 3/3

86506

5.4300 1142, 1273, 1297

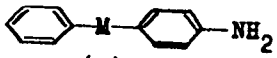
S/079/60/030/011/012/026
B001/B066

AUTHORS: Litvinenko, L. M. and Cheshko, R.S.

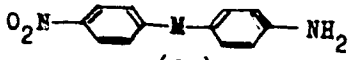
TITLE: Steric Configuration and Reactivity. XVIII. Reaction of Atom Groups Remote From One Another, According to Data Obtained for the Reaction Kinetics of Amino Derivatives of Diphenyl Oxide, Diphenyl Sulfide, and Diphenyl Selenide With Picryl Chloride

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 11, pp.3682-3692

TEXT: In the previous reports of this series (Refs.1-3), the investigation results of the reaction kinetics of p-nitro-benzoyl chloride with amino derivatives of the structure (I) and (II) in benzene were given



(I)



(II)

where M denotes the bridge atoms of oxygen or sulfur. It was shown that the influence of the nitro group upon the acylation rate of the amino group in the systems (III) becomes manifest with markedly greater inten-

Card 1/3

Steric Configuration and Reactivity. XVIII. Reaction of Atom Groups Remote From One Another, According to Data Obtained for the Reaction Kinetics of Amino Derivatives of Diphenyl Oxide, Diphenyl Sulfide, and Diphenyl Selenide With Picryl Chloride

S/079/60/030/011/012/026
B001/B066

sity than in the case of the diphenyl system (IV)

(III) (IV) (M = O or S),

which contains no separating bridge atom between the benzene nuclei. A quantitative characteristic of the capability of transmitting the interaction of the NO_2 and NH_2 groups in the molecular systems (III) and (IV) was the ratio of the rate constants in the reactions of the mono- and disubstituted derivative, e.g. K_I/K_{II} (factor f). The present report gives data on the investigation of the kinetics of similar reactions of amino derivatives of diphenyl oxide and diphenyl sulfide with picryl chloride, under equal conditions, which confirmed the kinetic results obtained in previous studies for the reaction which is particularly sensitive with respect to structural changes in the molecules of aromatic amino derivatives (Ref.4). In the molecular systems of diphenyl oxide,

86506

Steric Configuration and Reactivity. XVIII. Reaction of Atom Groups Remote From One Another, According to Data Obtained for the Reaction Kinetics of Amino Derivatives of Diphenyl Oxide, Diphenyl Sulfide, and Diphenyl Selenide With Picryl Chloride

S/079/60/030/011/012/026
B001/B066

diphenyl sulfide, and diphenyl selenide, in which the benzene rings are connected by means of the heteroatoms O, S, and Se, the 4'-NO_2 group affects the reactivity of the 4-NH_2 group in a distinctly higher degree than in the diphenyl system where the benzene nuclei are directly connected with each other. This fact confirms the higher intensity of electron transfer effects of substituents from one benzene ring into the other in systems which have bridges of heteroatoms. Student V. M. Zikranets assisted in conducting the synthesis. There are 8 tables and 26 references: 17 Soviet, 4 US, 2 British, 1 Italian, and 1 French.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet imeni A. M. Gor'kogo (Khar'kov State University imeni A.M.Gor'kiy)

SUBMITTED: January 1, 1960

Card 3/3

LUTSKIY, A.Ye.; LITVINENKO, L.M.; SHUBINA, L.V.; MAIKES, L.Ya.; CHESHKO, R.S.; GOL'BERKOVA, A.S.; KANEVSKAYA, Z.M.

Interaction of substituents through aromatic rings linked by a bridge group. Zhur.ob.khim. 35 no.12:2083-2090 D '65. (MIRA 19:1)

1. Khar'kovskiy politekhnicheskiy institut im. V.I.Lenina. Submitted May 28, 1964.

CHESHKO, V.A.

[How to get two and three vegetable crops a year] Kak poluchit' dva-tri urozhaia ovoshchei za god. Kiev, Gos. izd-vo sel'khoz. lit-ry USSR, 1956. 80 p. (MIRA 10:2)
(Ukraine--Vegetable gardening)

USSR/Cultivated Plants - Potatoes, Vegetables. Melons. M.

Abs Jour : Ref Zhur - Biol., No 10, 1958, 44100

Author : Chesiko, V.A.

Inst : Odess Agriculture Experimental Station.

Title : Slotting of the Spaces between the Rows to Direct Root Growth.

Orig Pub : Kartofel', 1957, No 3, 14-16.

Abstract : This article describes a new agricultural technique developed by the Odessa Agricultural Experimental Station and used for stimulating rapid spread of the roots of plowed cultures to the deep-seated soil horizons. The slotting is carried out with the aid of a special knife 70 cm long by which a slot 45-50 cm deep and 1.5-2 cm wide is made in the center of each space between the rows.

Card 1/2

SEMENOV, A.P., kand. tekhn. nauk; CHESHKO, Yu.V., inzh.;
STRYGIN, B.I., inzh.; PETROSYANTS, E.V., inzh.

Anchor or rod (mining terms). Nauch. soob. IGD 18:201-203
'63. (MIRA 16:11)

CHESHKOV, A.

New forms of labor organization on collective farms. Vop. ekon. no.1: 77-84 Ja '60. (MIRA 13:1)
(Collective farms)

S/056/62/042/001/023/048
B104/B102

AUTHORS: Cheshkov, A. A., Shirokov, Yu. M.

TITLE: Invariant parametrization of the relativistic scattering matrix

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 1, 1962, 144-151

TEXT: The parametrization is first performed in the center-of-mass system. A number of versions, all of them relativistically noninvariant, are tested. In so doing, the authors base on M. Yacob, G. C. Wick (Ann. of Phys., 7, 404, 1959), L. Wolfenstein, J. Ashkin (Phys. Rev., 85, 947, 1952), V. I. Ritus (ZhETF, 33, 1264, 1957); S. M. Bilen'kiy, L. I. Lapidus, L. D. Puzikov, R. M. Ryndin (ZhETF, 35, 959, 1958); and Ya. Fisher, S. Chulli (ZhETF, 38, 1740, 1960; 39, 1349, 1960). The scattering matrix S_{cms} parametrized in the c.m.s. does not essentially differ from other parametrized matrices. However, the invariantly parametrized elements of the S matrix are written in matrix form, in which no nonphysical parameters appear, and the particle chiralities are used to describe the initial and

Card 1/2

final states of the particles. This is necessary when examining reactions with zero-mass particles. The conditions under which the scattering matrix is invariant with respect to space and time reflections are formulated. Using a unitary Lorentz transformation U, the scattering matrix is parametrized in an arbitrary (laboratory) system: $S_{lab} = U^{+}S_{cms}U$. The invariant parametrization of the relativistic amplitude for scattering through given angles is performed for reactions with particles of arbitrary spins. The analysis is applicable to zero as well as nonzero rest mass particles. There are 15 references: 11 Soviet and 4 non-Soviet. The four references to English-language publications read as follows: A. Simon. Phys. Rev., 92, 1050, 1953; M. Yacob, G. C. Wick. Ann. of Phys. 7, 404, 1959; L. Wolfenstein, J. Ashkin. Phys. Rev., 85, 947, 1952; A. R. Edmonds. CERN, 55-26, Geneva, 1955.

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta (Institute of Nuclear Physics of the Moscow State University)

SUBMITTED: June 6, 1961

Card 2/2

DUBOVNIK, V.M.; CHESHKOV, A.A.

[From factors and multipoles in electromagnetic interactions] Formfaktory i mul'tipoli v elektromagnitnykh vzaimodeystviiakh. Dubna, Ob"edinennyi in-t iadernykh issl., 1965. 9 p. (MIRA 19:1)

1. Moskovskiy Aviatsionnyy institut imeni Sergo Ordzhonikidze.

L 13631-63 EWT(d)/FCC(w)/BDS AFFTC IJP(C)

ACCESSION NR: AP3003129 S/0056/63/044/006/1982/1992

AUTHOR: Cheshkov, A. A.; Shirokov, Yu. M.

TITLE: Invariant parametrization of local operators

SOURCE: Zhurnal eksper. i teor. fiziki, v. 44, no. 6, 1963, 1982-1992

TOPIC TAGS: local operator parametrization, space-time structure, elementary-particle structure

ABSTRACT: A general method is developed, with the aid of which the matrix elements of local operators of arbitrary tensor or spinor dimensionality, specified between states with either one or several particles of arbitrary mass or spin, are expressed in terms of invariant form factors. The same technique as used by the authors previously for parametrization of the scattering matrix (ZhETF v. 42, 144, 1962) is employed here, but is modified to allow also for the space-like 4-momenta and to accommodate the possible tensor or spinor indices of the local operators. The matrix elements of a scalar local quantity between the states of one particle with arbitrary spin is first parametrized. The results are then generalized to include the case of a local quantity having a nontrivial tensor dimensionality. The procedure is finally extended to matrix elements of local operators for particle systems.

Card 1/2 Association: Inst. of Nuclear Physics, Moscow St. Un.

L 22137-66 EWT(d) IJP(c)

ACC NR: AP6004933 SOURCE CODE: UR/0056/66/050/001/0144/0155

48
47
13

AUTHOR: Cheshkov, A. A.

ORG: none

TITLE: Invariant parametrization of the products of local operators

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50, no. 1, 1966, 144-155

TOPIC TAGS: operator equation, quantum theory, matrix element, spinor, tensor, nuclear spin, particle interaction, magnetic moment, electromagnetic field

ABSTRACT: This is a continuation of an earlier paper by the author (with Yu. M. Shirokov, ZhETF v. 44, 1982, 1963), where a relativistically invariant parametrization was carried out for matrix elements of local operators, thus expressing these matrix elements in terms of a finite number of invariant form factors. In the present article, the methods used in the earlier paper are used for parametrization of the matrix elements of products of local operators of arbitrary spinor or tensor ranks, taken between states containing one or several particles of arbitrary masses and spins. The method is based essentially on the operation of "transplanting" the spin of a particle from one momentum to another, and the procedures

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L 22137-66
ACC NR: AP6004933

for such a transplantation are discussed. The parametrization of the product of two scalar operators, of n scalar operators, and of two vector operators are discussed separately. The case of zero mass particles and the calculation of the off-diagonal matrix elements of the product of scalar operators are also treated. By way of an example, the polarizability tensor of a scalar particle in an electromagnetic field is considered, The magnetic multipole moment induced by the external current in such a case is evaluated. The author thanks Yu. M. Shirokov for continuous interest inthis work. Orig. art. has: 54 formulas.

SUB CODE: 20/ SUBM DATE: 05Jul65/ ORIG REF: 007/ OTH REF: 003

Card 2/2 BK

L 08181-67 EWT(1)/EWT(m) IJP(c) AT

ACC NR: AP6024876 SOURCE CODE: UR/0056/66/051/001/0164/0168

AUTHOR: Dubovik, V. M.; Cheshkov, A. A. 53 46 8

ORG: [Dubovik] Joint Institute for Nuclear Research (Ob"yedinennyy institut yadernykh issledovaniy); [Cheshkov] Moscow Aviation Institute (Moskovskiy institut)

TITLE: Elastic ed scattering and violation of CP invariance

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 1, 1966, 164-168

TOPIC TAGS: elastic scattering, electron scattering, deuteron scattering, parity principle, scattering cross section, angular distribution

ABSTRACT: The authors calculate the cross section for elastic scattering of electrons by deuterons. The contribution of the T-noninvariant form factor of the deuteron current is discussed in light of the experimental data and it is shown that a T-noninvariant interaction can be introduced in the electromagnetic vertex of an arbitrary particle with spin $J \geq 1$. The general form of the contribution to the elastic scattering of electrons by particles of arbitrary spin is derived in the one-photon approximation. In the simplest case of a particle with spin $j = 1$, the cross section in the presence of T-noninvariant terms is compared with the elastic scattering of electrons by deuterons. Polarization experiments are considered, capable of detecting

Card 1/2

ACC NR: AP6037067 SOURCE CODE: UR/0056/66/051/005/1369/1373

AUTHOR: Dubovik, V. M.; Cheshkov, A. A.

ORG: Joint Institute of Nuclear Research (Ob'yedinennyy institut yadernykh issledovaniy)

TITLE: Form factors and multipoles in electromagnetic interactions

SOURCE: Zhurnal eksperimental'noy i teoreticheskiy fiziki, v. 51, no. 5, 1966, 1369-1373

TOPIC TAGS: multipole order, electromagnetic interaction, multipole, magnetic multipole

ABSTRACT: The electric and magnetic multipoles of the first and second order are determined for arbitrary spin particles. The electromagnetic current operator is parametrized in terms of particle multipoles and their average zn-power distribution ranges. The properties of the current operators under conditions of superposition of P and T invariance are discussed. Orig. art. has: 23 formulas. [Authors' abstract] [AM]

SUB CODE: 20/SUBM DATE: 23Dec65/ ORIG REF: 005/ OTH REF: 001/

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L 08181-67

ACC NR: AP6024876

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the T-noninvariant form factor via the asymmetry of the angular distribution and the polarization of the recoil deuterons. The results indicate a possibility of explaining the discrepancy between the experimental and theoretical data. The authors are grateful to A. M. Baldin, S. B. Gerasimov, A. B. Govorkov, A. I. Lebedev, S. Ya. Nikitim, V. A. Petrun'kin and Yu. M. Shirokov for interest in the work. Orig. art. has: 9 formulas

SUB CODE: 20/ SUBM DATE: 23Dec65/ ORIG REF: 007/OTH REF: 005/

Card 2/2 nst

ACC NR: AR6033759 SOURCE CODE: UR/0081/66/000/018/P014/P014

AUTHOR: Chesnokov, A. A.; Ivankina, E. B.; Brendes, V. P.

TITLE: Influence of naphthenes on the deparaffination process of residual raffinates

SOURCE: Ref. zh. Khimiya, Part II, Abs. 18P97

REF SOURCE: Tr. Kuybyshevsk. n.-i. in-t neft. prom-sti, vyp. 32, 1965, 86-96

TOPIC TAGS: hydrocarbon, mineral oil, deparaffination, petroleum product

ABSTRACT: The influence of naphthene hydrocarbons on the deparaffination process was studied. Residual raffinate (RA) of industrial manufacture (RA density, 0.883; viscosity, 18.69 centistoke at 100C) was used as raw material. Naphthene hydrocarbons (density, 0.8678—0.8775; viscosity, 15, 18, 17.38 centistoke at 100C; viscosity index 110—100) were separated from the RA by adsorption and then added to the initial RA in the amount of 1 to 20%. The mixtures then deparaffinized. It is shown that even an insignificant increase in the naphthene content in RA, increases filtration rate 1.5 times, while an increase to 10—20% raises the filtra-

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ACC NR: AR6033759

tion rate 2—2.5 times. The yield of deparaffinated oil from the potential content in RA increases by 2%. A clearly visible crystal formation of solid hydrocarbons is observed during the deparaffination process. The performance indices improve through the reduction of the concentration of solid hydrocarbons and tars. The problem of RA deparaffination with the recirculation of deparaffinated oil is then examined. After the addition of 5 and 7% of oil, the RA filtration rate during deparaffination increased by 40 and 63%, respectively. The oil yield remained unchanged. M. Rozhkov. [Translation of abstract] [GC]

SUB CODE: 11/

Card 2/2

CHESHKOV, A. F.

Traktornaya brigada MTS (Tractor brigade of the machine tractor station)
Moskva, Sel'khozgiz, 1953.
198 p. tables, plan.
Bibliography: p. 196- (199)

CHESHKOV, Aleksandr Fedorovich

[The management of a tractor brigade at a machine-tractor station] Upravlenie traktornoi brigady mashino-traktornoi stantsii. Moskva, Znanie, 1955. 39 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser. 5, no.29) (MIRA 10:6)
(Machine-tractor stations)

CHESHKOV, Aleksandr Fedorovich, star.nauchn.sotr.,kand.ekon. nauk;GREBTSOV,P.P., red.; TRUKHINA, O.N., tekhn. red.

[Brigades and groups in over-all mechanization] Brigady i zven'ia kompleksnoi mekhanizatsii. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1960. 95 p. (MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomiki sel'skogo khozyaystva (for Cheshkov).
(Farm mechanization)

ALTAYSKIY, I.P., kand. sel'khoz. nauk; CHESHKOV, A.F., kand. ekon. nauk; MALIN, A.S., kand.ekon. nauk [deceased]; BOROVSKIY, V.A., kand. ekon. nauk; AREF'YEV, T.I., kand. ekon. nauk; GLINYANYY, V.G., kand. ekon. nauk; FRAYER, S.V., kand. sel'khoz. nauk; VINTAYKIN, Z.P., kand. ekon. nauk; DUBOROV, I.T., kand. ekon. nauk; BUSAROV, N.A., kand. sel'khoz. nauk; LUK'YANOV, A.D., kand. sel'khoz. nauk; RAKITINA, Ye.D., red.; SOKOLOVA, N.N., tekhn. red.

[Production brigades on collective and state farms] Proizvodstvennye brigady v kolkhozakh i sovkhozakh. Moskva, Sel'khozizdat, 1963. 374 p. (MIRA 17:1)
(Farm management)

CHESHKOV, A.I., inzh.

Concerning some physical and mechanical properties of corn plants. Mekh.i elek.sots.sel'khoz. 20 no.4:48-49 '62. (MIRA 15:8)

1. Kazakhskiy nauchno-issledovatel'skiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva.
(Corn (Maize))

CHESHKOV, M.S., dotsent

Storage of a radio impulse signal in a comb filter. Trudy MIIT no.149:40-55 '62. (MIRA 16:5)
(Radio filters) (Pulse circuits) (Electric filters)

CHESHKOV, M.S., kand. tekhn. nauk

Semigraphical method for analyzing amplitude-phase characteristics of systems. Trudy MIIT no.188:23-27 '64.

Study of the quality of the transient process in servo type- and sampled-data systems. Ibid.:28-38

(MIRA 17:10)

L 3091-66 EWT(d)/EWP(1) IJP(c) BC

ACCESSION NR: AR5009079 UR/0271/65/000/003/A010/A010
62-501.17

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika. Svodnyy tom, Abs. 3A57

AUTHOR: Cheshkov, M. S.

TITLE: Investigation of the quality of transient process in servo- and pulse systems

CITED SOURCE: Tr. Mosk. in-ta inzh. zh.-d. transp., vyp. 188, 1964, 28-38

TOPIC TAGS: servosystem, optimal servosystem

TRANSLATION: A second-order time-optimal servosystem consisting of adaptive elements is sought; an associated problem of preservation of the rectangular shape of pulses in some pulsed systems is considered. A specified frequency band is selected as a limiting factor; the band, under optimal conditions, is one-to-one connected with overcontrol and maximum rate-of-change of the controlled variable in the course of following. A step signal is adopted as an input. It is proven that, as a result of approximating the transient process by the Chebyshev

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L 3091-66
ACCESSION NR: AR5009079 O

polynomial, the best possible relation between the control time and the over-control time, which determines the optimality, can be achieved in a continuous-transient-process servosystem. Sometimes the optimal transient process can be materialized by constant-parameter discrete filters. Noise immunity of an optimized servosystem is analyzed. Bibl. 11, figs. 5.

SUB CODE: IE ENCL: 00

Card 2/2

L 42930-66 EWT(d)/EWT(l)/EWP(v)/EWP(k)/EWP(h)/EWP(l) BC

ACC NR: AT6020546 SOURCE CODE: UR/2649/65/000/211/0129/0133

65
64
62+1

AUTHOR: Cheshkov, M. S. (Candidate of technical sciences, Docent)

ORG: none

TITLE: Optimization of amplitude-phase characteristic of a pulsed system

SOURCE: Moscow. Institut inzhenerov zheleznodorozhnogo transporta. Trudy, no. 211, 1965. Konstruktivnyye elementy i sistemy avtomatiki (Hardware and automatic control systems), 129-133

TOPIC TAGS: electric filter, pulse amplitude, phase shift, signal distortion, signal to noise ratio, white noise, interference immunity

ABSTRACT: This is a continuation of earlier work by the author dealing with the design of optimal filters by means of Chebyshev polynomials (Trudy MIITa no. 150, 1963). The present article extends this method to discrete filters constructed in the form of a set of resonant circuits, which are particularly suitable for signals with a small signal-to-noise ratio and a large off-duty factor. The amplitude-phase characteristic of the corresponding optimal filter is determined as the ratio of the corresponding amplitudes of the harmonic components of the input signal for which the filter introduces no phase distortion. From the point of view of best signal-to-noise ratio (in the case of white noise), the optimal filter is defined as one whose amplitude-phase characteristic differs from that of the complex-conjugate function of the input-signal spectrum by a phase factor only. It is concluded from the analysis

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L 42930-66

ACC NR: AT6020546

that the interference immunity of a filter can sometimes be increased, at the expense of some deterioration of the pulse waveform. The conclusions obtained in the earlier paper with respect to the response of an optimal system to an infinite sequence of square pulses can be extended to arbitrary periodic sequences. Orig. art. has: .2 figures and 2 formulas.

SUB CODE: 09/ SUBM DATE: 00/ ORIG REF: 006

Card 2/2 MLP

CHESKIN, Mikhail Sergeyevich; IVANOV, S.M., red.

[Noise control] Bor'ba s shumom. Moskva, Izd-vo "Znanie," 1965. 44 p. (Novoe v zhizni, nauke, tekhnike. Seriia IV: Tekhnika, no.15) (MIRA 18:7)

CHESHMEDZHIEV, B.

"Experiments in Fattening Oxen by a Method of Bloodletting", p. 219. (IZVESTIIA, Vol. 3/4, 1952, Sofiya, Bulgaria).

SO: Monthly List of East European Accessions, LC, Vol. 3, No. 4, April 1954.

CHESHMEDZHIEV, B.

CHESHMEDZHIEV, B. Fattening farm animals. p. 20. Vol. 11, no. 11. Nov. 1956
KOOPERATIVNO ZEMEDELIE. Sofiia, Bulgaria

SOURCE: East European Accessions List (EEAL) Vol. 6 No. 4 April 1957

CHESHMEDZHIEV, BOIAN V.

Rukovodstvo za prakticheski uprazhneniia po khranene na selskostopanskite zhivotni. Sofiia, Zemizdat, 1954. 352p. (Universitetska literatura) (Handbook of practical exercises in feeding livestock; a university textbook) DA Not in DLC.

Bulgaria

SO: Monthly Index of East European Accessions (EEAI) LC, Vol 7, no 1 Jan 1958

CHESHMEDZHIEV, BOIAN V.
Pretsenka i podgotovka na furazhite za izkhranvane. Sofiia, Zemizdat, 1955. 138 p.
(Estimating and preparing forage for feeding) DA Not in DLC.
Bulgaria

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no 1 Jan. 1958

CHESHMEDZHIEV, B.

"Investigation of the pasturing and fattening of cattle in the Rila Mountains and the Rhodope Mountains."

p. 25 (Izvestiia, Vol. 9, 1958, Sofia, Bulgaria).

Monthly Index of East European Accessions (EEAI) LC, VOL. 7, No. 12, Dec. 58.

CHESH'EDZHIEV, B.

Composition, digestibility, and general food value of hay from forage plants and mixed plants. p. 21

IZVESTIIA. Sofiia, Bulgaria, Vol. 10, 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 9, No. 2, February, 1960. Uncl.

CHESHMEDZHIEV, B. V., st. n. sutr., kand. na selskostop. nauki

Ways for solving protein problems in feeding farm animals.
Priroda Bulg 11 no. 6:9-15 N-D '63.

PLATIKANOV, Nikola; CHESHMEDZHIEV, B.; DZHAROVA, M.; POTUSHAROVA, K.

Problem of making the Cr_2O_3 indicator method more accurate in determining the digestibility of rations. Izv Zhivotn nauki 1 no.2:15-34 '64.

1. Institute of Animal Husbandry, Kostinbrod. 2. Corresponding Member of the Bulgarian Academy of Sciences, and Member of the Board of Editors, "Izvestiia na Akademiiata na selskostopanskite nauki - Zhivotnovudni nauki" (for Platikanov).

CHESHMEDZHIEV, Marin, insh.

A method of testing the loop running resistance in ladies' fine stockings. Tekstilna prom 13 no.6:19-22 '64.

1. Machinery and Electrotechnical Institute, Sofia.

CHESHMEDZHIEV, MARIN DIMOV

"Pamuchno predachestvo. Sofiya (Narodna prosveta) 1951. Vol. 1. (Cotton spinning; a textbook for the fifth and sixth years of textile industrial schools.)

SO: Monthly List of East European Accessions, L.C., Vol. 2 No. 7, July 1953, Uncl.

CHESHMEDZHIEV, M.; NIKOLOV, I.

"Dissemination of Soviet books on textile technology and their influence on the development of the Bulgarian textile industry"

Leka Promishlenost. Tekstil. Sofiia, Bulgaria. Vol. 7, no. 10, 1958

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

CHESHMEDZHIEV, M.

"Improving the form of the platines on fine one-cylinder round hosiery machines in order to avoid the cutting of the thread in knitting."

LEKA PROMISHLENOST. TEKSTIL., Sofiia, Bulgaria., Vol. 7, No. 12, 1958

Monthly list of EAST EUROPEAN ACCESSIONS (EEAI), LC, Vol. 8, No. 7, July 1959, Unclas

CHESHMEDZHIEV, Marin, inzh.; IVANOV, Marin, inzh.; SAVOV, Chavdar, inzh.

Decreasing the uneven flexibility of interlock cotton knitware containing 33% cellulose fiber. Tekstilna prom 11 no.6[illegible] '62.

CHESHMEDZHIEV, Marin, inzh., st. prepodavatel

Band thread guide of the Rossen type. Tekstilna prom 12 no.3:16-18 '63.

1. Machinery and Electrotechnical Institute, Sofia.

IVANOV, M., inzh., nauch. sutrudnik; CHESHMEDZHIEV, M., inzh., st. prepodavatel; SAVCHEV, Ch., inzh., nauch.sutrudnik

Reducing the uneven shrinkage of cotton interlock knitted fabrics containing 33% staple fiber. Trud Inst tekstil prom 4:97-116 '63.

1. Machinery and Electrotechnical Institute (for Cheshmedzhiev).

KEVORKIAN, A., prof.; DAMIANOV, G., dotsent; NIKOLOV, I., inzh.; ATANASOV, Iv., inzh.; CHESHMEDZHIEV, M., inzh.; PESHEV, Khr., inzh.; CHERVENDINEV, At., inzh.; PANOV, Al., inzh.

Introduction of the tex system in the textile industry in Bulgaria. Pt.1. Tekstilna prom 14 no.1:16-21 '65.

1. Chair of Textile Technology of the Machinery and Electrotechnical Institute, Sofia.

CHESHMEDZHIEV, Marin, inzh.

Single-yarn clothlike knitted goods for outer clothing.
Tekstilna prom 14 no.1 30-33 '65.

CHESHMEDZHIEV, P.

Pyro-electroshock therapy of chronic schizophrenia. Suvrem. med., Sofia 10 no.1:89-94 1959.

1. Iz Psikho-nevrologichata bolnitsa--Kurilovo (Gl. lekar: St. Popov).
(SCHIZOPHRENIA, ther.
electric shock with pyrother. (Bul))
(SHOCKTHERAPY, ELECTRIC, in var. dis.
schizophrenia, with pyrother. (Bul))
(FEVER THERAPY, in var. dis.
schizophrenia, with electric shock ther. (Bul))

BOTEV, Shch.; MUSTAKOV, G.; IOVEV, S.; KHLEBAROV, St.; BEROVA, N.; CHESHMEDZHIEV, Zh.

Experience of the Scientific and Research Institute for Skin and Veneral Diseases in the treatment of skin diseases with biomycin. Suvrem. med., Sofia 8 no.8:3-12 1957.

1. Iz nauchnoizsledovatelskiia kozhno-venerologichen institut - Sofiia Direktor: prof. P. Popkhristov.

(SKIN DISEASES, ther.
chlortetracycline)
(CHLORTETRACYCLINE, ther. use
skin dis.)

BULGARIA/Human and Animal Physiology (Normal and Pathological) T
Nervous System. Vegetative Nervous System.

Abs Jour : Ref Zhur Biol., No 6, 1959, 27033

Author : Cheshmedzhiyev, Zh.
Inst :
Title : On Reactivity of the Vegetative Part of the Central Nervous System in Neurodermatitis.

Orig Pub : Izv. Otd. biol. i med. nauki Bolg AN, 1958, 2, No 1, 43-52

Abstract : No abstract.

Card 1/1

POPKHRISTOV, P.; CHESHMEDZHIEV, ZH.

On a case of generalized neurodermatitis terminating in leukemia.
Suvrem.med.,Sofia no.6:96-111 '59.

1. Iz Nauchnoissledovatelskiia koshno-venerologichen institut - Sofiia. Direktor: prof. P. Popkhristov.
(NEURODERMATITIS compl.)
(LEUKEMIA etiol.)

CHESHMEDZHIEV, Zh.

On the problem of Besnier-Boeck-Schaumann disease in recent years.
Suvrem.med.,Sofia no.8:116-120 '59.
(SARCOIDOSIS)

CHESHMEDZHIEV, Zh.

A method for colorimetric determination of pH on skin surface.
Suvrem. med., Sofia 11 no.2-3:157-163 '60.
(HYDROGEN ION CONCENTRATION)

KHLEBANOV, St.; CHESHMEDZHIEV, Zh.; ZHABLENSKI, B.

Magnesium sulfate as an antiperspirant (preliminary communication).
Suvrem med., Sofia no.12:118-123 '60.

1. Iz Nauchno-izsledovatelskiia kozhno-venerologichen institut, Sofia (direktor prof. P.Popkhristov) i Mediko-sanitarnata chast No.2, Gabrovo(glaven lekar Zh.Cheshmedzhiev)
(SWEATING)
(MAGNESIUM SULFATE ther)

POPKHRISTOV, P.; ICVEV, S.; PEKHLIVANOV, P.; CHESHMEDZHIEV, Zh.

Neurotropic treatment in dermatology. Dermato vener Sofia 1 no.3:17-25 '62.

1. Iz Nauchno-izsledovatelskiia kozhno-venerologichen i-t (direktor prof. P. Popkhristov).
2. Chlen na Redaktsionnata kolegiia, "Dermatologiia i venerologiia" (for Popkhristov).

MIKHAILOV, P. [illegible], Zh.

Occupational dermatoses caused by plastics. Dermato vener Sofia 2 no.[illegible] '63.

1. Scientific Research Dermatovenerological Institute (Director: Prof. I. Popchristov).

CHESHMEDZHIEVA, N. P.
SURNAME (in caps); Given Names

Country: Bulgaria

Academic Degrees:

Affiliation: Registered Nurse at the Psychiatric Clinic of the Advanced Medical Institute (Vissh Meditsinski Institut)

Source: Sofia, Sreden Meditsinski Rabotnik, No 1, 1961, pp 31-34

Data: "Admission and Accomodation of Psychiatric Patients."

L 44006-66 EWT(1)/EWT(m)/T/EWP(t)/ETI IJP(c) JD/GG

ACC NR: AP6029873 SOURCE CODE: UR/0413/66/000/015/0026/0026

INVENTOR: Vitovskiy, B. V.; Netesov, G. B.; Chernyshev, K. S.; Dobrzhanskiy, G. F.

ORG: none

TITLE: A method of growing single crystals. Class 12, No. 184246

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 26

TOPIC TAGS: single crystal, single crystal growing, homogeneous single crystal

ABSTRACT: This Author Certificate introduces a method of growing single crystals of substances which decompose at below-melting temperatures. The crystals are grown from a gaseous phase in a hermetically sealed ampoule moving in a furnace with preset temperature conditions. The crystals are grown with or without an oriented seed. Homogeneous single crystals are obtained by rotating the ampoule around its axis which coincides with the vertical axis of the furnaces and simultaneously moving it in upward direction. [MS]

SUB CODE: 20/ SUBM DATE: 22Mar65/ ATD PRESS: 5070

Card 1/1 blg UDC: 548.522

ACC NR: AN6033748 (N) SOURCE CODE: UR/9008/66/000/256/0002/0002

AUTHOR: Chernyshev, V. (Colonel; Military pilot of first class); Gribanov, S. (Major)

ORG: none

TITLE: Aerial combat and the mythical "fine" [aerial combat training]

SOURCE: Krasnaya zvezda, no. 256, 02 Nov 66, p. 2, cols. 1-3

TOPIC TAGS: fighter combat training, ~~aerial gunnery~~ gunnery training, training procedure

ABSTRACT: This article states that during tactical air exercises involving supersonic missile-carrying aircraft, the on-board barospeedograph or the gun camera are switched on before the air attack begins. On some bombers, all flight recording instruments are combined into one unit. To facilitate objective evaluation of the results of training flights on the practice range, regular TV camera and photographic cameras are used.

SUB CODE: 15, 05/ SUBM DATE: none

Card 1/1

RUMYANTSEV, G. (UA1DZ); CHERNYSHEV, V. (UA1MC)

Converter for 144 mc. operation. Radio no.11:19-20 N '65. (MIRA 18:12)

L 9683-66 EWT(m)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c) JD/HM

ACC NR: AP5027596 SUB CODE: UR/0135/65/000/011/0003/0005

AUTHOR: Trochun, I. P. (Candidate of technical sciences); Chernysh, V. P. (Engineer)

ORG: none

TITLE: Magnetic control of crystallization during electroslag welding

SOURCE: Svarochnoye proizvodstvo, no. 11, 1965, 3-5

TOPIC TAGS: magnetic control, electroslag welding, metal crystallization, alternating electromagnetic field

ABSTRACT: Welds produced by the electroslag method display a characteristic transcrystallite structure distinguished by lowered plasticity and lowered resistance to the formation of hot cracks. These shortcomings can be remedied by postheating, but this is not an economical technique. It is also possible, in principle, to remedy them by introducing modifying agents or by applying ultrasonic or mechanical vibration to the molten pool. But at present these techniques still are not practical. What remains then is control of crystallization by means of electromagnetic stirring of the molten pool during electroslag welding. To verify this possibility, the authors performed experiments to determine the dependence of the structure of the crystallized weld metal on the nature of surges in the molten pool. Ingots of a nonferromagnetic metal were subjected to electroslag welding be means of reversed-polarity

Card 1/3 UDC: 621.791.793.011

L 9683-66

ACC NR: AP5027596

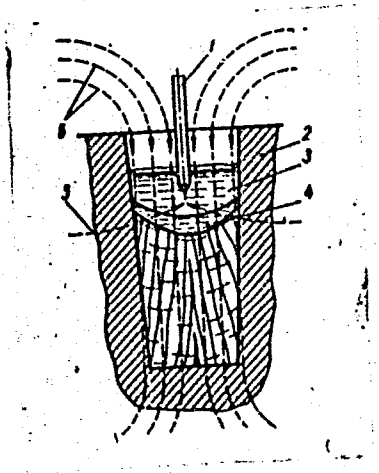

Fig. 1. Schematic of experiment:

1 - consumable electrode; 2 - crystallizer; 3 - slag bath; 4 - molten metal; 5 - lines of welding current; 6 - magnetic lines of force

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current. The molten pool was intersected by a magnetic flux directed along the vertical axis of the ingot (Fig. 1). The direction of rotation of the molten pool is alternately reversed by reversing the polarity of the magnetic field; this produces a stable oscillatory motion of the molten pool. In the presence of a low oscillation frequency (up to 15 cps) the columnar crystallites retain the same orientation as when a magnetic field is not applied, yet are much smaller. No explanation can be provided for this phenomenon as yet, but in all likelihood it is associated with cavitation. Thus the application of an alternating-polarity electromagnetic field to the molten pool during welding makes it possible to control the process of crystallization. Depending on the parameters of the field it is possible to reduce the size of the columnar crystallites, to alter the growth direction of these crystallites, and to eliminate (partially or completely) the transcrystallite structure, with the attendant formation of structures of a roughly equiaxial character. The best results in controlling crystallization are assured by an oscillatory rather than rotational character of motion of the molten pool (up to 15 cps). Orig. art. has: 4 figures

SUB CODE: 11,13,20/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 000

L 24675-66 EWT(1)/EWT(m)/EPF(n)-2/T/EWP(t) IJP(c) JD/GG

ACC NR: AP6013468 SOURCE CODE: UR/0139/66/000/002/0155/0157

AUTHOR: Zavadovskaya, Ye. K.; Chernyshev, V. A.

ORG: Tomsk Polytechnic Institute im. S. M. Kirov (Tomskiy politekhnicheskiy institut)

TITLE: Effect of preliminary γ-irradiation on the electric properties of single crystals

SOURCE: IVUZ. Fizika, no. 2, 1966, 155-157

TOPIC TAGS: gamma irradiation, irradiation effect, single crystal, dielectric crystal, electric property, electric conductance, temperature dependence

ABSTRACT: Conductance σ, tangent of the dielectric loss angle tan δ, and specific inductive capacitance ε of CaF_2 single crystals both irradiated from a Co^{60} source and nonirradiated have been investigated. The absorbed irradiation dose was $1.66 \cdot 10^8$ rad. Conductance σ was measured by means of a d-c amplifier with an electric field intensity of 500 v/cm. Accuracy of σ measurements was 20%. Tan δ and ε were measured by means of an unbalanced bridge in the 100—20,000 cps frequency range. Measurement accuracy was 20% for the tangent of the dielectric loss angle and 0.3% for specific inductive capacitance. Specimen capacitance was within 7 to 12 pf. The specimens were 0.8—1.1 mm thick. Platinum electrodes were deposited by cathode spraying in a vacuum. The same specimens were used for measuring σ, tg δ and ε.

Card 1/2

L 24675-66

ACC NR: AP6013468

Measurements were taken in a vacuum (8—5)·10^{-4} mm Hg at temperatures ranging from 20 to 450C. Curves of the dependence of conductance on temperature show discontinuity in the range 90—130C. For irradiated crystals conductance increases up to the discontinuity point, beyond which conductance is equal to that of nonirradiated crystals. Curves for the dependence of tan δ on temperature show regions both of conductance and relaxation losses. ε increases slightly and almost linearly with an increase in temperature. It was also noted that preliminary irradiation results in a decrease both of tan δ and ε, and in an increase in conductance. Orig. art. has: 3 figures. [DW]

SUB CODE: 09/ SUBM DATE: 25Nov64/ ORIG REF: 001/ OTH REF: 003

Card 2/2 FW

GOLUD, T.; CHERNYSHENKO, A.

Eightieth birthday of Professor I. I. Puzanov. Biul. MOIP. Otd. biol. 70 no.3:110-112 My-Je '65. (MIRA 18:10)

YEPIFANOVA, V.I., doktor tekhn. nauk; GOROKHOV, V.S., inzh.; CHERNYSHEV, B.A., inzh.; NARINSKIY, G.B., kand. tekhn. nauk

Nitrogen-oxygen BR-6 plant developed by the All-Union Scientific Research Institute of Industrial Oxygen Apparatus Construction. Trudy VNIIKIMASH no.10:3-46 '65. (MIRA 18:9)

CHERNYSHEV, V.I., kontr-admiral zapasa

Reviews and bibliography. Mor. sbor. 48 no.7:93-96 Jl '65.
(MIRA 18:8)

CHERNYSHEV, M.A., prof.

Calculating the gauge width on curves. Vest. TSNII MPS 24 no.5:9-13 '65. (MIRA 18:9)

CHERNYSHEV, S.

Railroad and motor vehicle stations. Avt. transp. 43 no.8:8-9 Ag '65. (MIRA 18:9)

1. Pervyy zamestitel' ministra avtotransporta i shosseynykh dorog UkrSSR.

CHERNYSHEV, V., inzh.

Technical possibility of automating the process of ships passing clear of each other. Mor. flot 23 no.6:16-17 Je '63. (MIRA 16:9)

(Collisions at sea--Prevention)
(Electronics in navigation)

CHERNYSHEV V.

AUTHOR: Chernyshev, V. 89-1-28/29

TITLE: On the International Atomic Authority (V Mezhdunarodnom agentstve po atomnoy energii).

PERIODICAL: Atomnaya Energiya, 1958, Vol. 4, Nr 1, pp. 108-108 (USSR).

ABSTRACT: In October 1957 the general conference of the International Atomic Authority was held in Vienna.
In addition to the 13 members of the managing staff further 10 members were elected in accordance with point VI of the statutes.
The first tasks to be carried out by this authority are, among others.
a) to provide facilities for the training of new experts.
b) to provide technical material for information.
c) establishment of dosimetric standards.
d) to work out regulations concerning safety of work.
e) to work out a building program for reactors.
The Conference decided upon the budget and the first transition budget. The 2. session of the general conference will take place in December 1958. - There is 1 Slavic reference.

AVAILABLE: Library of Congress.

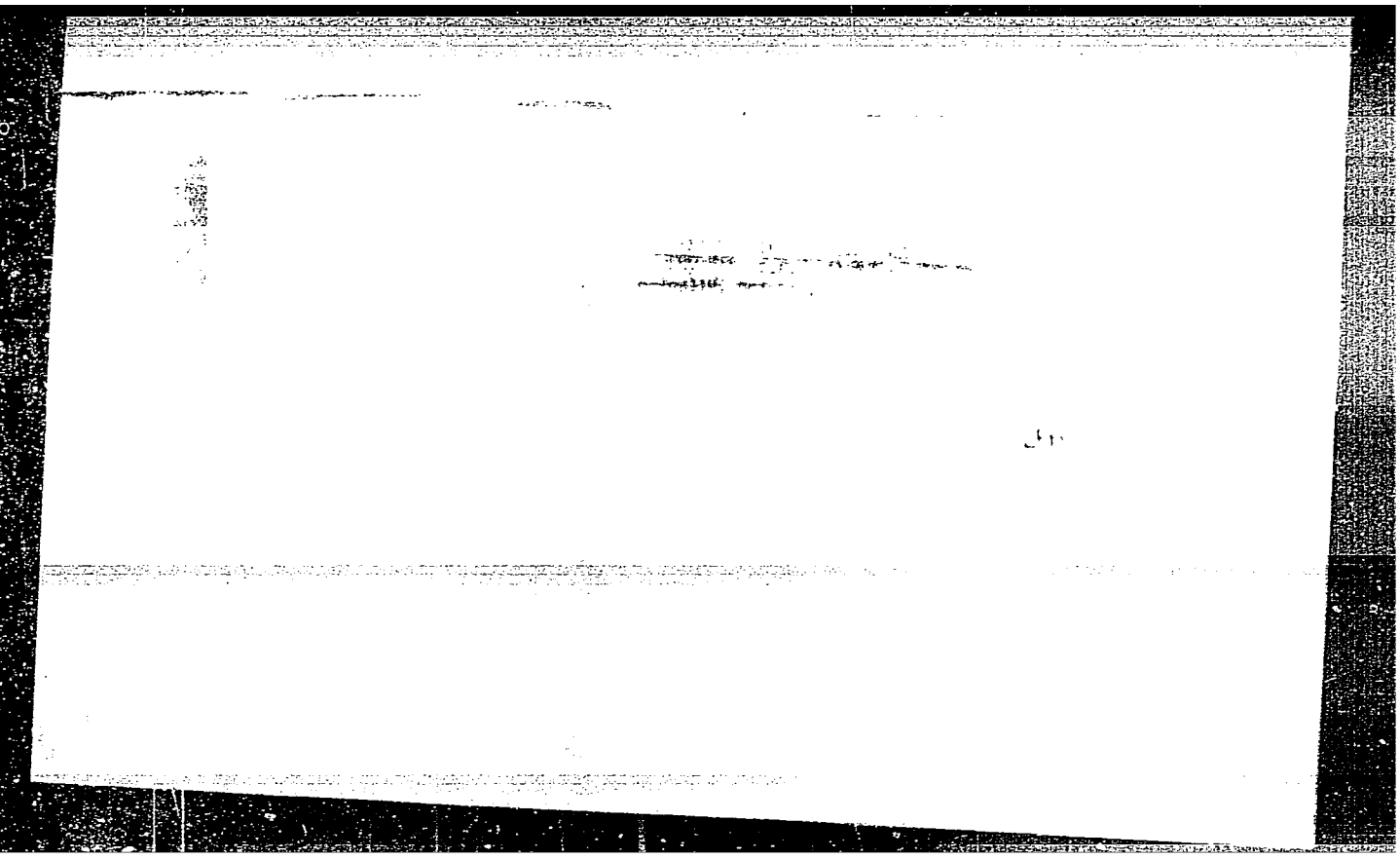
Card 1/1

CHERNYSHEV, V., inzh.

Selecting a type of computing device for the automation of ship handling processes. Mor. flot 23 no.9:20-21 S '63. (MIRA 16:11)

RUMYANTSEV, G. (UA1DZ); CHERNYSHEV, V. (UA1MC)

Unusual tropospheric propagation of radio waves. Radio no.3: 15 Mr '65. (MIRA 18:6)



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